ACCESSION NR: AT4013987

Fig. 1 in the Enclosure) which can be used to reduce all angles of twist to a uniform specimen height and to determine the conductance of a given material with the aid of a simple formula:

$$\sigma = K \; \frac{\Delta \varphi_l}{i^2_{mean}}$$

where K is the instrument constant determined from the angle of twist of a uniform height standard, i_{mean} is the average current intensity in stator components in amps., $\Delta \varphi_l$, is the angle of twist reduced to uniform specimen height, in radians. Temperature was shown to have little effect on the value of K. Orig. art. has: 1 table, 2 formulas, 2 graphs.

ASSOCIATION: MOSKOVSKIY INSTITUT STALI I SPLAVOV (Moscow Steel and Alloy Institute)

SUBMITTED: 00   DATE ACQ: 20Feb64   ENCL: 01

SUB CODE: ML, SD   NO REF SOV: 003   OTHER: 001

Card 2/32

S/031/62/000/012/001/002
B142/B186

AUTHORS: Voleynik, V. V., Kunayev, A. M., Candidate of Technical
             Sciences

TITLE: The equilibrium potentials of vanadium in chloride melts

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Vestnik, no. 12 (213),
             1962, 28-33

TEXT: For the electrolytic purification of raw vanadium it is important
to know its equilibrium potentials in order to determine optimum
processing conditions. The investigations were carried out in a eutectic
melt of LiCl and KCl. A V-electrode (highly purified vanadium) was
dipped as anode in this melt to form VCl_2. To prevent oxidation of the
vanadium, the space over the melt was evacuated to 1-2 mm Hg and filled
with argon (at 3-5 mm Hg excess pressure) after the gases dissolved in
the melt had escaped. The equilibrium potentials were measured with
respect to a lead reference electrode containing LiCl and KCl with a
8.05% $PbCl_2$ solution. The results were converted for a chlorine electrode.

Card 1/2

The equilibrium potentials ...

S/031/62/000/012/001/002
B142/B186

The exact V concentrations were determined by weighing the V-electrode after the experiment. They were 1.19, 3.48, 9.1, and 11.2% by weight of VCl_2. The temperature range was 570-810°C. Isotherms which formed straight lines with a slope of 2.3 RT/2F showed that bivalent V ions existed in the melt. Results: (1) Change of free energy for the formation of $VCl_{2\ liqu}$ from the elements as a function of temperature: ΔF_1^o = 101100 + 25.3 T cal/mole; (2) heat of fusion 8.8 cal/mole; (3) change of entropy in melting VCl_2 5.4 cal/mole; (4) temperature of the VCl_2 melt 1400°C (1350°C found by P. Ehrlich and H. I. Seifert, Z. anorgan. und allgem. Chem. 1953, 301, nos. 5-6, 282-287). Diffusion potentials were neglected in the calculations, since the salts determining the potentials (VCl_2 and $PbCl_2$) were strongly diluted by electrochemically indifferent salts. There are 3 figures. The English-language reference is: D. H. Ir. Baker, and I. D. I. Ramsdell, Electrochem. Soc., v. 108, 12, 1960, 985.

Card 2/2

LOPATKINA, G.A.; BOGACHOV, G.N.; VOLEYKO, N.S.

Effect of the intensity of mixing on the dimensions of crystals
formed during decomposition of sodium fluorosilicate by sodium
carbonate solutions.   Zhur.prikl.khim. 35 no.10:2180-2184 O '62.
(MIRA 15:12)

(Sodium fluosilicate)(Sodium carbonate)(Crystals)

35224

S/148/62/000/001/009/015
E073/E535

18.1783

AUTHORS: Voleynik, V.V., Yelyutin, V.P., Lysov, B.S. and
Maurakh, M.A.

TITLE: Electric conductivity of solid and liquid titanium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, no.1, 1962, 137-140

TEXT: Although data on the electric conductivity of
titanium up to temperatures of 1300°C have been published, similar
data relating to near-fusion temperature and to the liquid state
have not been published. An electrodeless method was applied for
measuring the resistivity of titanium. This is based on measuring
the stationary torsion angle of a specimen suspended on an elastic
thread in a rotating magnetic field. The stator coil winding of
the measuring instrument was provided with a high temperature
insulation and the coils were placed inside a water-cooled steel
housing. Graphite heater elements were used which permitted
obtaining temperatures up to 2500°C. The method of measurement of
the resistivity is similar to that applied by other authors for
measuring the resistivity of molten metals. The temperature
Card 1/3

Electric conductivity of solid ...   S/148/62/000/001/009/015
                                       E073/E535

dependence of the resistivity of titanium ρ , mohm·cm is plotted
in a graph. Curve 1 represents the values obtained by the author
of this paper, curves 2 and 3 are published values. For the liquid
metal two values were obtained: A - for melts produced in ThO_2 or
BeO crucibles, B - for melts produced in graphite crucibles. The
author points out that the data for liquid titanium at 1800°C
(points A and B) are not entirely reliable and should be verified
with a crucible material less active towards liquid titanium than
the graphite, thorium dioxide, and beryllium oxide used in these
experiments. From the test results the temperature coefficients of
α- and β-titanium were determined.   The specific resistance of
α-titanium in the temperature range 20 to 450°C can be expressed
by
$$\rho_\alpha = 61.5 \left[1 + 2.48 \cdot 10^{-3} (t - 20) \right]$$
and for β-titanium, in the temperature range 880 to 1700°C, can be
expressed by
$$\rho_\beta = 143 \left[1 + 2.13 \cdot 10^{-4} (t - 880) \right] .$$
There are 1 figure and 11 references: 5 Soviet-bloc and 6 non-
Soviet-bloc. The four latest English-language references read
as follows: Ref.2: McQuillan A.D. J. Inst. Met., 78,249, 1950-51;
Card 2/3

Electric conductivity of solid ...   S/148/62/000/001/009/015
E073/E535

Ref.5: I.L.Wyrtt.Trans.Amer.Inst.min.(metal) Engrs.197,903,1953;
Ref.4: W.C.Michels, S.Wilford. Phys.Rev. 76,174,1949; Ref.10:
B.Weber, M.Thompson. J.Amer.Ceram.Soc. 40(11), 363, 1957.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: April 6, 1961

Figure
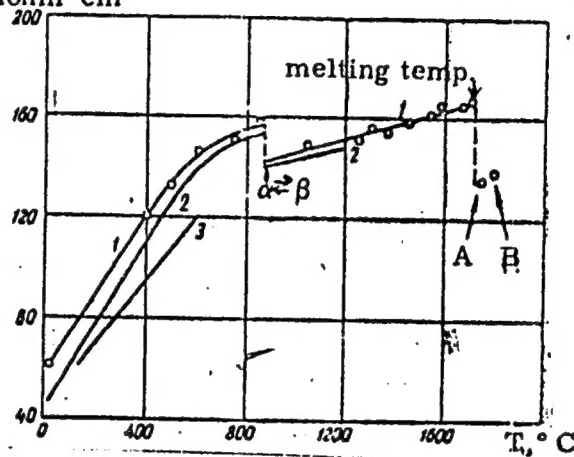
Card 3/3

KUNAYEV, A.M.; VOLEYNIK, V.V.

Prospects for obtaining vanadium and its alloys from
Kazakhstan ores. Trudy Inst. met. i obog. AN Kazakh.
SSR 5:3-11 '62.   (MIRA 15:11)
                    (Kazakhstan—Minerals)
                        (Vanadium)

VOLEYNIK, V.V.; YELYUTIN, V.P.; LYSOV, B.S.; MAURAKH, M.A.

Electrical conductivity of solid and liquid titanium. Izv.
vys. ucheb. zav.; chern met. 5 no.1:137-140 '62.
                                                    (MIRA 15:2)

1. Moskovskiy institut stali.
    (Titanium—Electric properties)

VOLF, A.

MALEK, I.; VOSYKOVA, L.; VOLF, A.   "Fission of Bacteria."   p. 12.
(Chekhoslovatskaia Biologiia. Vol. 2, No. 1, Apr. 1953. Praha.)

SO: Monthly List of ~~Russian~~ Accessions,/Library of Congress, June   1954, Uncl.

East European   Vol. 3, No. 6

VOLF, A.

MALEK, I.; VOSYKOVA, L.; VOLF, A. "Stability of Bacteria Cultured in a Flowing Medium." p. 68. (Chekhoslovatskaia Biologiia. Vol. 2, no. 2, Apr. 1953. Praha).

MALEK, Ivan, akademik; VOSYKOVA, L., tekhnicheskiy sotrudnik;
VOL'F, A., tekhnicheskiy sotrudnik.

Stability of bacteria cultured in a flowing medium. Chekh.biol.
2 no.2:68-77 Ap '53.   (MLRA 7:2)

1. Institut biologii ChSAN, mikrobiologiya, Praha.
       (Bacteria) (Bacteriology--Cultures and culture media)

MALEK, I; VYSOKOVA, L., tekhnicheskiy sotrudnik; VOL'F, A., tekhnicheskiy sotrudnik.

Fission of bacteria. Chekh.biol. 2 no.1:12-17 Ap '53.   (MLRA 7:2)

1. Biologicheskiy institut ChSAN, mikrobiologiya, Praha.
(Bacteria)

AUTHOR: Yermilova, I. A. (Aspirant); Kotetskiy, V. V. (Research associate); Vol'f,
A. A. (Docent, Candidate of technical sciences)

SOURCE CODE: UR/0342/65/000/011/0014/0017

ORG: /Yermilova, Kotetskiy/ LITLP imeni S. M. Kirov

TITLE: Microbiological resistance of disinfectant poly(vinyl alcohol) fibers

SOURCE: Tekstil'naya promyshlennost', no. 11, 1965, 14-17

TOPIC TAGS: synthetic fiber, polyvinyl alcohol, disinfectant fiber, microbiology,
microorganism contamination

ABSTRACT: A study has been made of the resistance of disinfectant poly(vinyl alcohol)
[PVA] fibers to microorganisms which attack fibers proper. These microorganisms are
more resistant to outside effects than pathogenic microorganisms affecting humans. The
experiments were conducted with various brands of PVA fibers, including the disinfec-
tant Iodin-N's and R (containing iodine), Letilan and Biolan-SS (the latter containing
silver) fibers and the following microorganisms: Bac. mesentericus, Ps. fluorescens,
and Ps. herbicola. The experimental procedure is described in the source. It was
shown that disinfectant PVA fibers are highly resistant to microorganisms which attack
natural and nondisinfectant synthetic fibers. In other experiments, disinfectant fi-
bers were twisted with natural fibers. Disinfectant fibers Biolan-SS, Letilan and Iodin-N exhibited no signs of dam-
age for periods of up to four months. A final series of experiments conducted with

Card 1/2

UDC: 677.494.+1/2:576.8001.5

KABANOV, V.N., kand. tekhn. nauk (Sverdlovsk); VOL'F, A.M., inzh.
(Sverdlovsk); KUIMOV, V.I., inzh. (Sverdlovsk)

New textbook on electric traction. Zhel. dor. transp. 45 no.11:
94-95 N '63.   (MIRA 16:12)

VOL'F, A.M., kand.tekhn.nauk

Conditions of the work of electric locomotives in case of the over-
heating of traction motors with decreased excitation. Vest.TSNII
MPS 23 no.2:11-14 '64.
(MIRA 17:3)

VAYNSHTEYN, B.Z. (Tbilisi); VOL'F, A.M., kand. tekhn. nauk

Experimental study of the heating and cooling of the traction
motors of main line electric locomotives. Elektrichestvo
no.10:85-86 O '64.   (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodo-
rozhnogo transporta, Ural'skoye otdeleniye (for Vol'f).

VOL'F, A.M., starshiy nauchnyy sotrudnik; KLEYNERMAN, M.I. (Sverdlovsk)

Accounting and establishing of norms for electric power
consumption are an important prerequisite for its efficient
utilization. Zhel.dor.transp. 42 no.1:41-43 Ja '60.
(MIRA 13:5)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'-
skogo instituta zheleznodorozhnogo transporta (for Vol'f).
2. Nachal'nik tekhnicheskogo otdela sluzhby elektrifikatsii
Sverdlovskoy dorogi (for Kleynerman).
(Electric railroads)

VOL'F, A.M., nauchnyy sotrudnik

Does increasing the length of locomotive runs affect the heating up of electric locomotive motor windings? Elek. i tepl. tiaga 3 no.4:27-29 Ap '59.   (MIRA 12:7)

1.Ural'skoye otdeleniye TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva putey soobshcheniya, Sverdlovsk.
            (Electric railway motors)

SOV/112-58-2-2325

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 2, p 87 (USSR)

AUTHOR: Vol'f, A. M.

TITLE: Ways to Save Electric Energy (Puti ekonomii elektroenergii)

PERIODICAL: Elektr. i teplovozn. tyaga, 1957, Nr 2, pp 22-24

ABSTRACT: During the last few years, Sverdlovsk railroad personnel have achieved a certain success in reducing the per-unit consumption of electric energy. In accelerating VL-22^m, an electric locomotive energy saving is effected largely by reducing losses in the starting resistor. Calculations show that the greatest saving can be obtained in accelerating heavy-weight trains upgrade. Use of the maximum currents possible during acceleration is recommended. Lightweight train run and acceleration on a downgrade should be conducted mostly on the running positions of series-connected and series-parallel-connected traction motors with a weakened field. These measures permit saving 3-8 kwh-ton during one acceleration period, depending on the train weight and on the angle of downgrade. In running on flat terrain, the main source of savings is the accumulation of kinetic energy on downgrades and its

Card 1/3

SOV/112-58-2-2325

Ways to Save Electric Energy

utilization on flat sections and upgrades. The saving in the per-unit energy consumption on downgrades can be calculated from this formula: $\alpha = 0.0121 \, (v_2^2 - v_1^2)$, where v_2 is the actual speed in km/hour at the end of the downgrade section, v_1 is the speed at the beginning of the downgrade in km/hour, and the efficiency can be assumed to be equal to 0.885; losses in the supply power system are not taken into consideration. The correct pattern of driving heavyweight trains is very important. The energy saving on a heavy train can be determined from this formula: $A = PQ a_3 \ell / 1000 Q_H$, where A is the saving in km/h, P is the locomotive weight in tons, Q is the train over-weight as compared to its normal weight in tons, Q_H is the normal weight in tons, a_3 is the energy consumption per unit, and ℓ is line section length in km. The saving can be calculated for any number of trains or for the entire depot. The same formula can serve for determining the overconsumption of energy in the case of driving partially-loaded trains. Experience has shown that regenerative braking can be used reliably in the speed range from the maximum speed down to 70 km/h, and for 250 amp and more in the traction motor in the range

Card 2/3

SOV/112-58-2-2325

Ways to Save Electric Energy

down to 50-55 km/h. The use of regenerative braking permitted the workers of the Goroblagodatskaya - Chusovaya - Kizel line to return 7,203,000 kwh to the power system in 1956, in addition to the regenerated energy used by other locomotives that worked under traction conditions. With a double-traction run on easy sections of the railroad, the locomotives are underloaded; hence, the traction motors of the second locomotive should be switched off on such sections. To secure such a possibility, the workers of the second Perm' depot have made an alteration in the control circuit of the VL-22^m electric locomotive. To record the switching-on of the second locomotive, a special relay has been installed in the top lead of the speedometer. A train's timetable has a great influence on its electric-energy consumption. Many points about normalizing electric-energy consumption are not clear, and the current technical norms need serious corrections.

T.A.K.

Card 3/3

VOL'F, A.M., inzh.; RUDAKOV, B.V., inzh.

Stability characteristics of the VL22^m electric locomotive.
Vest. TSNII MPS 17 no.6:49-51 S '58.   (MIRA 11:11)

1. Ural'skoye otdeleniye Vsesoyuznogo tsentral'nogo nauchno-
issledovatel'skogo instituta Ministerstva putey soobshcheniya.
          (Electric locomotives--Testing) (Stability of locomotives)

VOLIF A. M., inzhener.

Ways to economize on electric energy; experience of the Sverdlovsk
railroad. Elek. i tepl. tiaga no.2:22-24 F '57.   (MLRA 10:5)
                (Sverdlovsk--Electric railroads)

VOL'F, A.M., inzhener (Sverdlovsk)

Eliminate contradictions in designating locomotive capacity.
Elek.i tepl.tiaga no.5:27 My '57. (MLRA 10:7)
(Locomotives)

VOL'F, A.M., inzh.

Effect of ventilation intensity on the heating of the electric
locomotive traction motor. Vest. TSNII MPS 20 no.7:59-62 '61.
(MIRA 14:12)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta zheleznodorozhnogo transporta, Ministerstva putey
soobshcheniya, Sverdlovsk.
(Electric railway motors—Cooling)

VOL'F, A.M., inzh.

Effect of voltage deflection in the overhead network on the heating of the armature coils of the motor of a d.c. electric locomotive. Trudy TSNII MPS no.246:119-154 '62.

(MIRA 16:2)

(Electric locomotives—Testing)
(Electric railroads—Current supply)

VOL'F, A. S.

42746. VOL'F, A. S. i ANIKIN, M. M. Sovremennyye Voprosy Lechebnoy I Sotsial'noy Pomoshchi Invalidam Otechestvennoy Voyny s travmaticheskimi Porazheniyami Nervnoy sistemy. V SB: Med.-San. Posledstviya Voyny i Meropriyatiya Po Ikh Likvidatsii.
T. I. M., 1948, s. 110-18.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

1. VOL'F, A. S.

2. USSR 600

4. Psychiatrists

7. Life and creative activity of V. M. Bekhterev, Sov. med, 16, No. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VoLF, A·S·

A. VOLF

"The life and creative activity of V. M. Bekhterev" Tr. from the Russian p.108 (ANALELE ROMANO-SOVIETICE. SERIA MEDICINA GENERALA Vol. 6, No. 3, May/ June 1953 Bucuresti, Rumania)

SO: East Enropients, LC, Vol. 2, No. 12, Dec. 1953

WOLF, B.

Coefficient of thermic expansibility and technical glass. II. p. 90.
SKLAR A KERAMIK, Praha, Vol. 5, no. 4, Apr. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
     Uncl.

WOLF, B.

Coefficient of thermic expansibility and technical glass. I. (To be contd.)
p. 68.
SKLAR A KERAMIK, Praha, Vol. 5, no. 3, Mar. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
     Uncl.

WOLF, B.

   Coefficient of thermic expansibility and technical glass. III. p. 114.
   SKLAR A KERAMIK, Praha, Vol. 5, no. 5, May 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
   Uncl.

TABOLIN, V.A.;   VOL'F, B.S.; MATSULEVA, N.N.; GENKINA, E.M.; ORLOVA,
L.M.; PETRUN'KINA, Z.A.

Features of the course of erythroblastosis fetalis in newborn
infants. Sov. med. 24 no. 7:50-56 Jl '60.   (MIRA 13:8)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) TSentral'-
nogo instituta msovershenstvovaniya vrachey i rodil'nogo doma
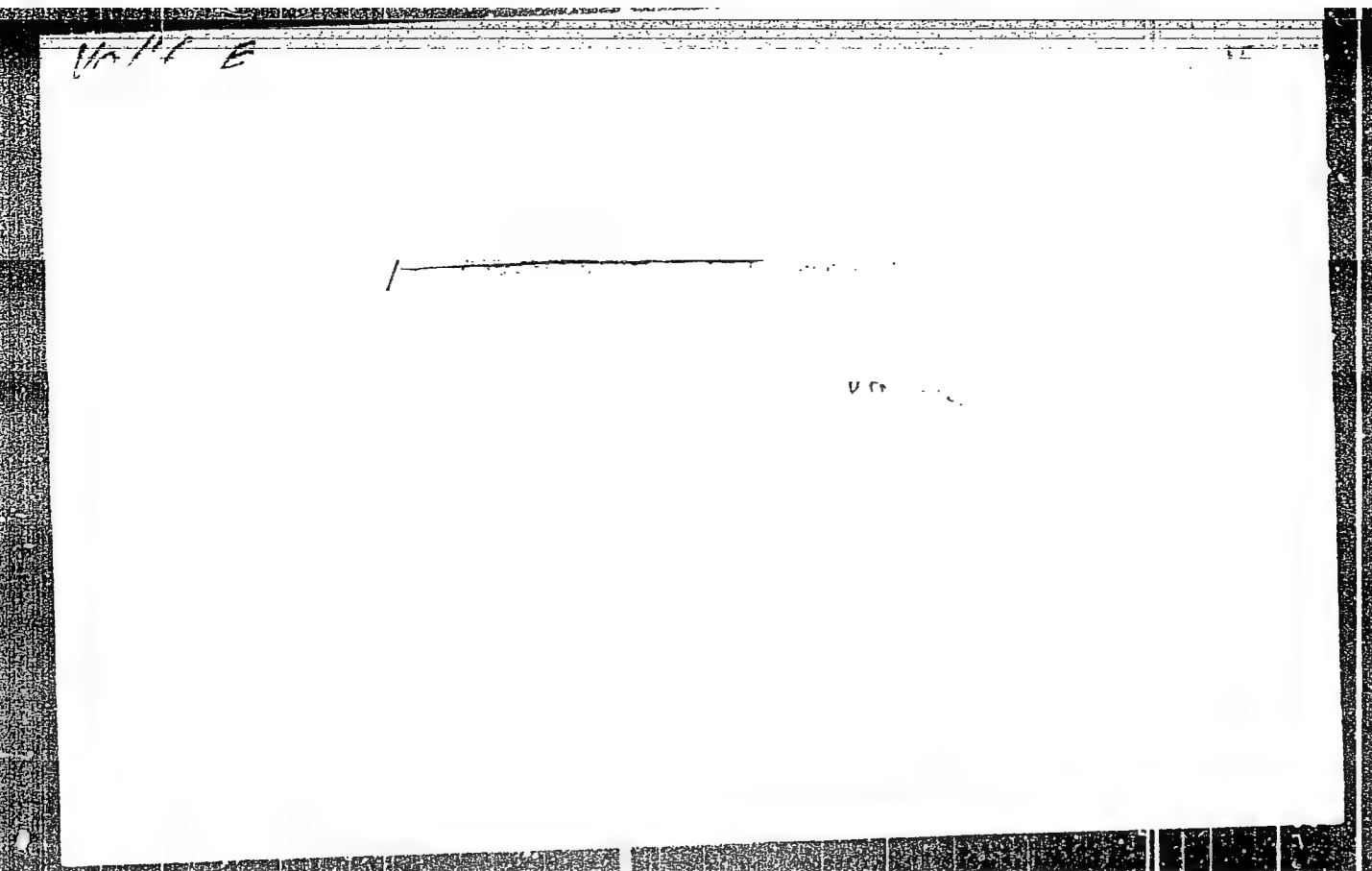No. 12 (glavnyy vrach M.M. Repina), Moskva.
                    (ERYTHROBLASTOSIS FETAL)
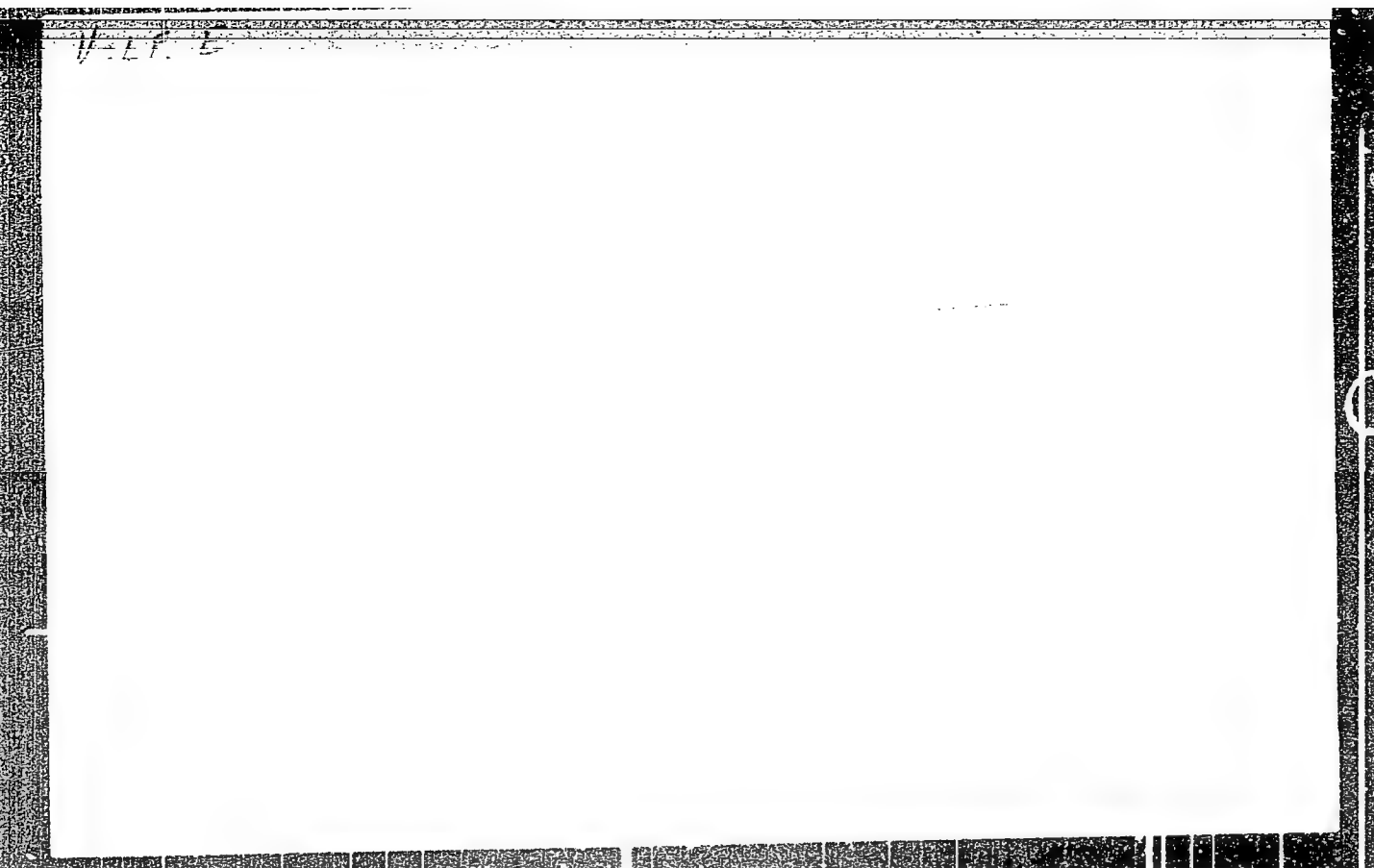
VOL'F, E   SHCHUKAREV, S.A.;   VOL'F, E.;   MOROZOVA, M.P.

Enthalpy of lithium stibide formation. Zhur.ob.khim. 24 no.11:
1925-1926 N '54.   (MIRA 8:3)

1. Leningradskiy gosudarstvennyy universitet.
        (Lithium stibide) (Enthalpy)

WOLFE E.

VA14 E

2. summary in compounds with a variable composition

Chemistry of compounds of the variable composition

of $CoTe_{1.x}$ (Co_3Te_4). Within the limits of homogeneity ΔH_f is a linear function of compn.   I. Rovtar, Leonid

VOL'F, E.

79-2-3/58

AUTHORS: Ariya, S. M.; Morozova, M. P.; Khuan Tszi-Tao; Vol'f, E.

TITLE: The Enthalpy of Formation of Lithium, Magnesium and Zinc Arsenides
(Ental'piya obrazovaniya arsenidov litiya, magniya i tsinka)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 2, pp. 293-295 (U.S.S.R.)

ABSTRACT: The formation enthalpies of lithium, magnesium and zinc arsenides
were experimentally established at -81.3 ± 2, -96 ± 3 and -30.5 ± 3
kcal/g respectively. Numerous facts are cited indicating that the
formation enthalpy value of arsine is in agreement with the data on
the thermal stability of arsenides. Li_3As appears to be a somewhat
more exothermal compound than Li_3Sb which is in conformity with the
fact of displacing the Sb by As from the combination with Li.

Card 1/2   There are 7 references, of which 4 are Slavic.

79-2-3/58

The Enthalpy of Formation of Lithium, Magnesium and Zinc Arsenides

ASSOCIATION: The Leningrad State University

PRESENTED BY:

SUBMITTED: March 24, 1956

AVAILABLE: Library of Congress
Card 2/2

SOV/54-59-1-10/25

5(2)
AUTHORS: Morozova, M. P., Vol'f, E., Balova, T. P.

TITLE: The Chemistry of Compounds of Variable Composition (Khimiya soyedineniy peremennogo sostava). VIII. Volume Relations Within the System Titanium - Oxygen (VIII. Ob"yemnyye soot nosheniya v sisteme titan -kislorod)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii 1959, Nr 1, pp 78-83 (USSR)

ABSTRACT: In previous papers the authors stated that the formation enthalpy of substances located within the homogeneous range of salt-like compounds with variable composition virtually does not differ from the formation enthalpy of mixtures of corresponding stoichiometric compounds. These salt-like com pounds of variable composition are therefore assumed to be submicro-inhomogeneous systems. The lattice of one compound includes small lattice ranges of another stoichiometric com pound. In this paper the authors ascertained the course of the values of the grammformula volumes of the system titanium oxygen for the purpose of determining how far the volume relations of this system agree with the assumptions concern

Card 1/3   ing the chemical structure of salt-like compounds with variable

The Chemistry of Compounds of Variable Composition. VIII. Volume Relations
Within the System Titanium - Oxygen

composition. The grammformula volume was determined on the
basis of pycnometric measurements of the density. The re-
sults are listed in a table. From the dependence of the
grammformula volume on the composition of oxides the follow-
ing conclusions were drawn: the grammformula volumes of
substances which are contained in that portion of the homo-
geneous range of titanium oxide ($TiO_{1.00}$ - $TiO_{1.22}$) which

is enriched with oxygen virtually do not differ from the
volume of a mixture of $TiO_{1.00}$ and $TiO_{1.50}$ of the same gross

composition. The same holds for the grammformula volumes
of substances which are contained within the homogeneous
ranges of titanium oxide poor in oxygen, which do not differ
from mixtures of equal gross composition. This fact corres-
ponds to the model assumed for the chemical structure of
salt-like compounds with variable composition. Further, the
authors stated full agreement between the energy- and volume
Card 2/3   diagram of the system titanium - oxygen. There are 1 figure,

SOV/54-59-1-10/25

The Chemistry of Compounds of Variable Composition. VIII. Volume Relations
Within the System Titanium - Oxygen

1 table, and 10 references, 8 of which are Soviet.

SUBMITTED: June 10, 1958

Card 3/3

5 (4)

AUTHORS: Vol'f, E., Tolkachev, S. S.,   SOV/54-59-2-13/24
              Kozhina, I. I.

TITLE: X-Ray Investigation of Titanium (II)- and Vanadium (II) Oxides
              (Rentgenograficheskoye issledovaniye zakisey titana i vanadiya)

ABSTRACT: The lower oxides TiO and V_2O_3 to be investigated were obtained
              by vacuum coagulation from powdery hydrated titanium + TiO_2
              at 1300, and from hydrated vanadium + V_2O_5 at $1600°$. The V_2O_5
              used was of the KhCh type. The analysis of the preparations
              was carried out by determining the increase in weight at the
              oxidation to TiO_2 and V_2O_5, respectively. For the qualitative
              evaluation of the extension of the homogeneous ranges as a
              preliminary investigation, powder diagrams were prepared by
              means of RPK-2 cameras. The samples were turned during
              photographing. The diagrams are shown in figures 1 and 2. The
Card 1/3   diagram of the vanadium (II) oxides shows that the vanadium (II)

X-Ray Investigation of Titanium (II)- and   SOV/54-59-2-13/24
Vanadium (II) Oxides

oxide has a wide homogeneous range, and that only at $VO_{1.32}$
new lines appear which belong to the V_2O_3. There are no inter-
mediate phases between vanadium (II) oxide and V_2O_3. The lower
limit of the vanadium (II) oxide as a homogeneous phase could
be determined at $VO_{0.80}$ (upper limit at $VO_{1.28}$). In the
titanium-oxygen system, $TiO_{0.40}$ - $TiO_{0.60}$ proved to be an
independent phase, in the range $TiO_{0.83-90}$ two phases existed
(TiO and $TiO_{0.48}$). The upper limit of the homogeneous range
of the titanium (II) oxide was determined at $TiO_{1.20}$ (lower
limit at $TiO_{0.89}$). The lattice parameters were determined by
precision roentgenograms by means of the same camera RPK-2,
taken according to the asymmetric method by Straumanis. The
values of these parameters   depending   on the composition.
and production temperature of the preparations are compiled
in table 1 (for the vanadium (II) oxides) and table 2 (for

Card 2/3

X-Ray Investigation of Titanium (II)- and   SOV/54-59-2-13/24
Vanadium (II) Oxides

the titanium (II) oxides) (also in figures 3, 4). The figures
clearly show that the lattice parameter of the vanadium (II)
oxide increases with increasing oxygen content, whereas the
parameter of the titanium (II) oxide decreases with increasing
oxygen content. The value of the lattice parameter found for
$VO_{1.0}$ (4.069 Å) corresponds to the values found by Mathewson
(Ref 8) and Rostoker (Ref 10), for titanium (II) oxide it
lies near the value found by Anderson (Ref 3) (4.182 Å). There
are 4 figures, 2 tables, and 10 references, 4 of which are
Soviet.

SUBMITTED: July 1, 1958

Card 3/3

VOL'F, E., Cand Chem Sci -- (diss) "Thermodynamic and roent-
genographic study of compounds of variable composition in the
system Ti-O and V-O." Len, 1958. 14 pp (Len Order of Lenin
State Univ im A. A. Zhdanov), 150 copies (KL, 35-58, 105)

-8-

VOL'F, E.; TOLKACHEV, S.S.; KOZHINA, I.I.

Roentgenographic investigation of titanium and vanadium oxides. Vest.
LGU 14 no.10:87-92 '59.   (MIRA 12:6)
          (Titanium oxides) (Vanadium oxides)

VOL'F, E.

Development and regulation of extremities in birds. Izv.AN
SSSR.Ser.biol. no.3:335-343 My-Je '59.   (MIRA 12:9)

1. Kollezh de Frans, Laboratoriya eksperimental'noy embriologii,
Nozhan-na-Marne.
          (EXTREMITIES (ANATOMY)) (EMBRYOLOGY--BIRDS)

5 (2)
AUTHORS: Vol'f, E., Ariya, S. M.   SOV/79-29-8-3/81

TITLE: Enthalpy of Formation of Vanadium Oxides

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 8, pp 2470 - 2473
                 (USSR)

ABSTRACT: The vanadium oxides necessary for the investigation were pre-
                 pared in a special furnace at $1,600^{\circ}$ by fusing the mixtures of
                 the pulverized, hydrogenized vanadium and vanadium oxide which
                 had been pressed into tablets. The analysis of the preparations
                 obtained was made by determination of the weight gained in their
                 oxidation to V_2O_5. The radiographic investigation of the pre-

                 parations showed that under these conditions the range of homo-
                 geneity of the vanadium suboxide lies within the interval
                 $VO_{0,86}$ - $VO_{1,27}$. The heats of combustion of vanadium oxide were
                 determined calorimetrically using small quantities $(0,1-0,2 \text{ g})$
                 and an oxygen pressure of 42 atm. The gross composition of the
                 combustion product was determined by the weight gained in oxi-
                 dation. Results obtained in the determination of the heats of
                 combustion (Q,p) of vanadium oxide and of metallic vanadium
Card 1/2   (with corrections) and the heats of formation of the various

Enthalpy of Formation of Vanadium Oxides   SOV/79-29-8-3/81

compositions computed from them are shown in table 1. The heats
of formation hitherto determined of the vanadium oxides
VO_4, V_2O_3, VO_2, and V_2O_5 differ considerably from each other. In
table 2 the data obtained by the authors are compared with those
given in publications. They correspond well to those by H.
Siemonsen and to those suggested by the American Bureau of
Standards if the sources of errors are taken into consideration.
Thus, it was ascertained that the heat of formation of vanadium
suboxide changes steadily with the composition, as is the case
with titanium suboxide. This regularity is not in contradiction
to the concept of the inhomogeneous submicroscopic structure
of the lattice of some oxides of variable composition. There
are 1 figure, 2 tables, and 9 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State
               University)

SUBMITTED: July 11, 1958

Card 2/2

"APPROVED FOR RELEASE: 03/14/2001   CIA-RDP86-00513R001860420018-1

SOV/79-29-9-73/R

5(2)
AUTHORS: Vol'f, E., Morozova, M. P.

TITLE: Proportions by Volume Ratios in the System Vanadium - Oxygen

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9,
                pp 3146 - 3148 (USSR)

ABSTRACT: Investigation of proportions by volume in binary systems is of
                great interest since it often furnishes sufficient detailed in-
                formation on the limits of homogeneous ranges and also in-
                creases the knowledge of the actual nature of solid phases
                necessary for the investigation
                (Refs 1,2). The vanadium oxides mixtures of hydrogenated
                were prepared by annealing compressed (V₂O₃) in an electric fur-
                vanadium powder and vanadium oxide (V₂O₃) used contained
                nace at 1600 within 3-4 hours. The vanadium oxide was produced
                months of a per cent of cobalt; the vanadium oxide at 900. The com-
                by reducing vanadium pentoxide with hydrogen according to the in-
                position of the preparations was checked according to V₂O₅. The densities
                crease in weight in the preparation oxidation up to V₂O₅. The densities
                determined by a formerly found method (Ref 3). The density was
                and volumes of the vanadium oxides according to the gram-for-
                mula are listed in a table, and their course in the figure.

APPROVED FOR RELEASE: 03/14/2001   CIA-RDP86-0

Card 1/2

Proportions by Volume Ratios in the System
Vanadium - Oxygen

SOV/79-29-9-73/76

Therefore the vanadium- and titanium monoxide, according to the terminology of N. S. Kurnakov's school, are no berthollides (as usually assumed)but daltonides, if the form of dependence of the gram-formula-volumes and enthalpies of formation on the composition is taken into account. A distinct change in volume is visible in the formation of substances of the following composition: $VO_{1.00} - VO_{1.27}$ from $VO_{1.00}$ and $VO_{1.50}$. The course of gram-formula-volumes leads to $VO_{1.25} - VO_{1.28}$ as upper limit of the homogeneous range of vanadium oxide. A singular point on the curve composition-versus-gram-formula-volume corresponds to the composition $VO_{1.67}$, which agrees with the radiographic data on the existence of a compound of this composition. There are 1 figure, 1 table, and 8 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: July 11, 1958

Card 2/2

VOL'F, E.L.

Motherhood defamed; pages from an Italian journal. Zdorov'e 4
no.5:32 My '58.
            (ITALY--CHILDBIRTH)   (MIRA 11:4)

VOLF, E.L.

Gift to humanity. Zdorov'e 2 no.5:26-27 My '56.
(CHILDBIRTH—PSYCHOLOGY)   (MLRA 9:8)

PAUKRTOVA, Ludmila; VOLF, Frantisek

Increasing efforts of trade-unions to improve the labor
productivity and management of wage funds. Prace mzda 10
no.9:419-421 S '62.

1. Ustredni rada odboru.

L 42064-65   EWT(m)/EWG(m)   RWH/RM

ACCESSION NR: AP5010918

AUTHORS: Bakhmann, R.; Kraus, U.; Royter, Kh.; Shvakhula, G.; Varneke, D.;

UR/0286/65/000/007/0103/0103

Voland, V.; Volf, F.

TITLE: A method for obtaining sulfocationites   Class 39, No. 169786

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 103

TOPIC TAGS: sulfocationite, polymer, monomer, sulfonation, vinyl, epoxy, initiator, organic solvent

ABSTRACT: This Author Certificate presents a method for obtaining sulfocationites by sulfonating a copolymer of one or several monovinyl aromatic compounds with one or several bonding agents containing vinyl or epoxy groups. The copolymerization is conducted in the presence of initiators in the medium of an organic solvent. To obtain mechanically strong sorbents, the organic solvent is added during polymerization in the amount of 0.25-5% by weight of the monomers.

ASSOCIATION: none

SUBMITTED: 01Nov63

NO REF SOV: 000

Card 1/1

ENCL: 00
OTHER: 000

SUB CODE: OC, GC

VOLF, F.

Decaying of young slrcnoid fish caused by oversaturation of water with gases.", p. 89, (SEC*NIK, Vol. 26, #1/2, Feb. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Uncl.

VOLF, F.

"The Most Important Fish Diseases in Our Pond Economy and Protective Measure to be Used Against Them." p. 1156 (ZA SOCIALISTICKE ZEMEDELSTVI, Vol. 3, No. 10, Oct. 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

VOLF, F.

"Trout wounded by electric current during the fishing process.", p. 109,
(SBORNIK, Vol. 26, #1/2, Feb. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of
Congress, August 1953, Uncl.

VOLF, Frantisek

Tasks of the Revolutionary Trade Union Movement in remunera-
tion of workers. Prace mzda 11 no.9:436-439   8'63.

VOLF, Frantisek

New tasks in the wage control in 1964. Prace mzda 12 no.3:
100-104 Mr'64

1. Central Council of Trade Unions.

VOLF, Frantisek

Control of wage funds by banks and the use of assets outside the
fund for the payment of wages in 1965. Prace mzda 12 no.12:532-536
D '64.

1. Central Council of Trade Unions, Prague.

A study of the conditions for the chemical treatment of low-grade chromites. F. P. Vol'f AND E. N. Pinahvakaya. *J. Chem. Ind.* (*Moscow*) 8, 949-55(1931). Saranovsk chromite from the Urals contains about 40% Cr_2O_3. Attempted mech. concn. is unsuccessful, since the Al_2O_3 present is not removed. The best treatment was found to be fusion of the ore with soda and dolomite in the proportions 1:0.8:0.8 at 1100-1200°. Natural dolomite was superior to pure MgO. The fusion was extd with H_2O. When 98% of the Cr_2O_3 was extd., 75% of the Al_2O_3 was dissolved. The alk. ext. was neutralized to ppt. $Al(OH)_3$. CO_2 in this step gives the best form of $Al(OH)_3$ with respect to ease of washing and suitability for future use, but as the soln. remains alk., pptn. is incomplete. H_2SO_4 gives complete pptn. The $Al(OH)_3$ is fit for immediate conversion into alum, but not into cryolite. It contains no Fe and little Cr. The filtrate from the $Al(OH)_3$ can be worked up in the usual way into Cr salts. The process is economically practicable.   H. M. Leicester

18

Accumulation of organic substances in the production of alumina by the Bayer process. F. F. Vol'f and O. I. Pudovkina. *Legkie Metal.* 4, No. 8, 21-34(1935). In the treatment of Ural bauxites, the org. substances in soln. increase up to the 5th or 6th cycle. After this they remain const. The amt. is insufficient to be harmful.

H. W. Rathmann

Preparing crystalline aluminum hydroxide from chro-
mate-aluminate solutions by precipitation with sulfuric
acid. F. F. Vol'L and E. P. Mikhailova. *J. Applied
Chem.* (C. S. S. R.) 8, 1361-71 (in German 1371-2) (1935).
—Solns. contg. Na_2CrO_4, NaOH and from 7 to 35 g. of
Al_2O_3 per l. are best neutralized at 80°. A 15-17%
H_2SO_4 soln. is added rapidly until pptn. begins, then
evenly at a rate of neutralization of 0.5-1.5 g. of Na_2O per
l. per hr. The ppt. of pure $Al(OH)_3$ is easy to filter and
wash.   H. M. Leicester

METALLURGICAL LITERATURE CLASSIFICATION

18

Obtaining crystalline aluminum hydroxide from chromate-aluminate solutions with carbon dioxide. P. F. Vol'f and A. E. Morokhovets. J. Applied Chem. (U.S.S.R.) 9, 412-19(in German 419)(1936); cf. C. A. 30, 6141³.—Slow addn. of gas contg. 10% CO₂ to a soln. of chromates and aluminates at 80-90° gives large, easily filtered crystals of Al(OH)₃, which contain about 0.03% Cr₂O₃.   H. M. Leicester

PROCESSES AND PROPERTIES INDEX

The process of decomposition of aluminate solutions and methods for improving its efficiency. F. F. Vol'f and O. I. Pudovkina. *Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Issledovaniyu i Proektirovaniyu Alyuminievoi Elektrodnoi Prom.* 1940, No. 20, 21-32; *Khim. Referat. Zhur.* 1940, No. 8, 80.—Theoretical analyses and exptl. verification of the decompn. of aluminate soln. according to the Bayer method are given. Analyses of the diagrams indicate that the effectiveness of the decompn. method can be increased by lowering the moduli (Na_2O : Al_2O_3 ratio) of the initial and the final soln., at an optimum diln. for the given modulus. The expts. confirmed these conclusions. Initial and final moduli of 1.4 and 3.4, resp., gave the best yields. . . . W. R. Henn

18

ASM - SLA   METALLURGICAL LITERATURE CLASSIFICATION

BC

B-1

Acceleration of the decomposition of aluminate solutions by small additions of aluminium salts. F. F. Volf, S. I. Kuznetsov, and O. V. Serebrennikova (J. appl. Chem. U.S.S.R., 1950, **23**, 60—65).—Decomposition of metastable aluminate solutions supersaturated with respect to hydrargillite (I) is accelerated by addition of powdered cryst. Al salts, gels of Fe or Ti oxides, S, sulphates of Fe, or metallic Al, AlF$_3$ and AlCl$_3$ being most effective; solutions of these compounds are ineffective. P'ptn. of I is induced by addition of only 1% of the Al salt (based on the Al$_2$O$_3$ in solution) compared with ~ 10% of cryst. Al$_2$O$_3$.3H$_2$O usually used in the Bayer process, and the optimum conditions are the same, viz., a temp. of 30°, NaOH concn. not too high, and optimum concn. of solution. Pptd. I is microcryst. with a particle size of ~ 3—4 μ. under laboratory conditions.   J. H. J. ZARA.

VOL'F, F. F.

(2)

Equilibrium diagram of the system Al_2O_3-Na_2O-H_2O. F. F. Vol'f and S. I. Kuznetsov. *Zhur. Priklad. Khim.* 26, 298-302(1953); cf. Fricke and Jucaitis, *C.A.* 24, 5250.— Older data are reexamd. in the light of more recent expti. facts. The compn. of the solid phase in equil. with soln. represented by the right branch of the isotherms above 30° are still unknown. Available data practically complete the isotherm at 30°: the left branch (*AB*) is in equil. with $Al_2O_3.3H_2O$ (I); the right branch is divided into (*BC*) in equil. with $Na_2O.Al_2O_3.2.5 H_2O$ (II) and (*CD*) in equil. with $3Na_2O.Al_2O_3.6H_2O$ (III). The space of the rectangular co-ordinate, giving the isotherm as a plot of Al_2O_3 vs. Na_2O, is divided by lines drawn at 45° to the axes representing the same (wt. %) H_2O content; and by lines from the origin representing the same mole ratio Na_2O/Al_2O_3. From the 3 sections of the isotherm (*AB*), (*BC*), and (*CD*), as bases, tri-angles are drawn with apexes at the corresponding solid phase I, II, and III. Thus 6 fields are delineated represent-ing areas of equil. with the 3 solid phases and pairs of I-II and II-III.   I. Bencowitz

$V_oL'F, F. F.$

AID F - 2288

Subject   : USSR/Chemistry

Card 1/1   Pub: 152 - 14/21

Authors   : Vol'f, F. F, O. F. Ryazantseva and S. I. Kuznetsov

Title   : Effect of sodium sulfide on the decomposition
             of aluminate solutions

Periodical: Zhur. prikl. khim., 28, no.3, 319-322, 1955

Abstract : Sodium sulfide contained in aluminate solutions decreases
             their rate of decomposition. Two tables, no references.

Institution: Ural Polytechnic Institute (im. Kirov)

Submitted : D 9, 1953

Voľt, F. I.

Polytherms of the system alumina–sodium oxide–water. F. F. Voľt and S. I. Kuznetsov, J. Appl. Chem. U.S.S.R. 28, 600–9(1955)(Engl. translation).—See C.A. 50, 45d. C H
B. M. R.

①

V   r   T T

AID P - 3490

Subject	:	USSR/Chemistry
Card 1/1		Pub. 152 - 5/21
Authors	:	Vol'f, F. F. and S. I. Kuznetsov
Title	:	Polytherms of the system Al_2O_3—Na_2O—H_2O
Periodical	:	Zhur. prikl. khim., __28__, 6, 597-601, 1955
Abstract	:	The solubility of hydrargillite was determined in alkaline solutions containing 5.5, 12 and 20% Na_2O at 105, 110, and 115°C and in a solution containing 9.6% Na_2O at 45, 80, 120 and 130°C. Three diagrams, one table, 5 references, 3 Russian (1937-1950).
Institution	:	Ural Polytechnic Institute im. S. M. Kirov
Submitted	:	S 26, 1953

L 42065-65 EWT(m)/EWG(m)--RWH/RM

ACCESSION NR: AP5010917   UR/0286/65/000/007/0103/0103

AUTHORS: Bakhmann, R.; Kraus, U.; Royter, Kh.; Shvakhula, G.; Varneke, D.; B
Volond, V.; Vol'f, F.

TITLE: A method for obtaining anionites. Class 39, No. 169785/5

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no, 7, 1965, 103

TOPIC TAGS: anionite, monomer, polymer, vinyl, copolymerization, copolymer
solubility, alkyl, organic solvent, amination

ABSTRACT: This Author Certificate presents a method for obtaining anionites by
copolymerization of one or several monovinyl aromatic substances with one or
several bonding agents. This is followed by introducing a haloid alkyl and by
amination during which copolymerization is conducted in the medium of organic
solvents in which monomers are soluble, while polymers are practically insoluble.
To increase the thermal stability of the strong sorbents, the solvents are added
in the amounts of 0.25-10% by weight of the monomers.

ASSOCIATION: none

Card 1/2

VOL'F, F.F.[deceased]

Stability of metastable aluminate solutions. Trudy Ural.politekh. inst. no.58:5-23 '57. (MIRA 11:4)

(Alkali metal aluminates) (Solution (Chemistry)

VOL'F, F.F. [deceased]; LEVKOVICH, F.Ye.

Influence of the small additions of various substances on the solubility
of aluminum hydroxide in alkaline solvent. Trudy Ural. politekh.
inst. no.58:24-27 '57.   (MIRA 11:4)
          (Aluminum hydroxide) (Solubility)

Vc L. F ,   G,

USSR/Physical Chemistry - Molecule. Chemical Bond.   B-4

Abs Jour   : Referat Zhur - Khimiya, No 6, 25 March 1957, 18128

Author   : Petrashen', M.I., Ivanova, A.V. and Vol'f, G.
Title   : Elementary Method of Accounting for the Influence of
               the Field of Crystalline Lattice upon the Monoelectron S-
               and P- Functions of an Ion.

Orig Pub   : Vestn. Leningr. Un-ta, 1956, No 10, 29-38

Abstract   : The influence of the field of cub. lattice of an ion
               crystal upon monoelectron functions of a separated
               "central" ion is studied, taking into consideration only
               electrostatical interaction. The potential of the field
               is resolved into cub. harmonics. Coefficients in this
               resolution are determined in the case of point lattice.
               Examination shows that under the influence of the field
               of the lattice the electron bond of the positive ion
               with the nucleus is weakened and the bond of the negative
               ion becomes stronger. An approximate method is given for

Card 1/2   - 13 -

USSR/Physical Chemistry - Molecule. Chemical Bond.   B-4

Abs Jour   : Referat Zhur - Khimiya, No 6, 25 March 1957, 18128

determination of the radial part of monoelectron function
of central ion;   the method is based on taking the field
of the lattice as approximately equal to zero inside the
ion and equal to a certain constant value, depending on
the constant functions $f_{2p}(r)$ for F⁻ and $f_{1s}(r)$ for Li
were built in the field of the crystal LiF.
Computed with their help values of polarizability and
diamagnetic susceptibility are in good agreement with the
observed values.

Card 2/2   - 14 -

VOL F G

VOL'F   G.
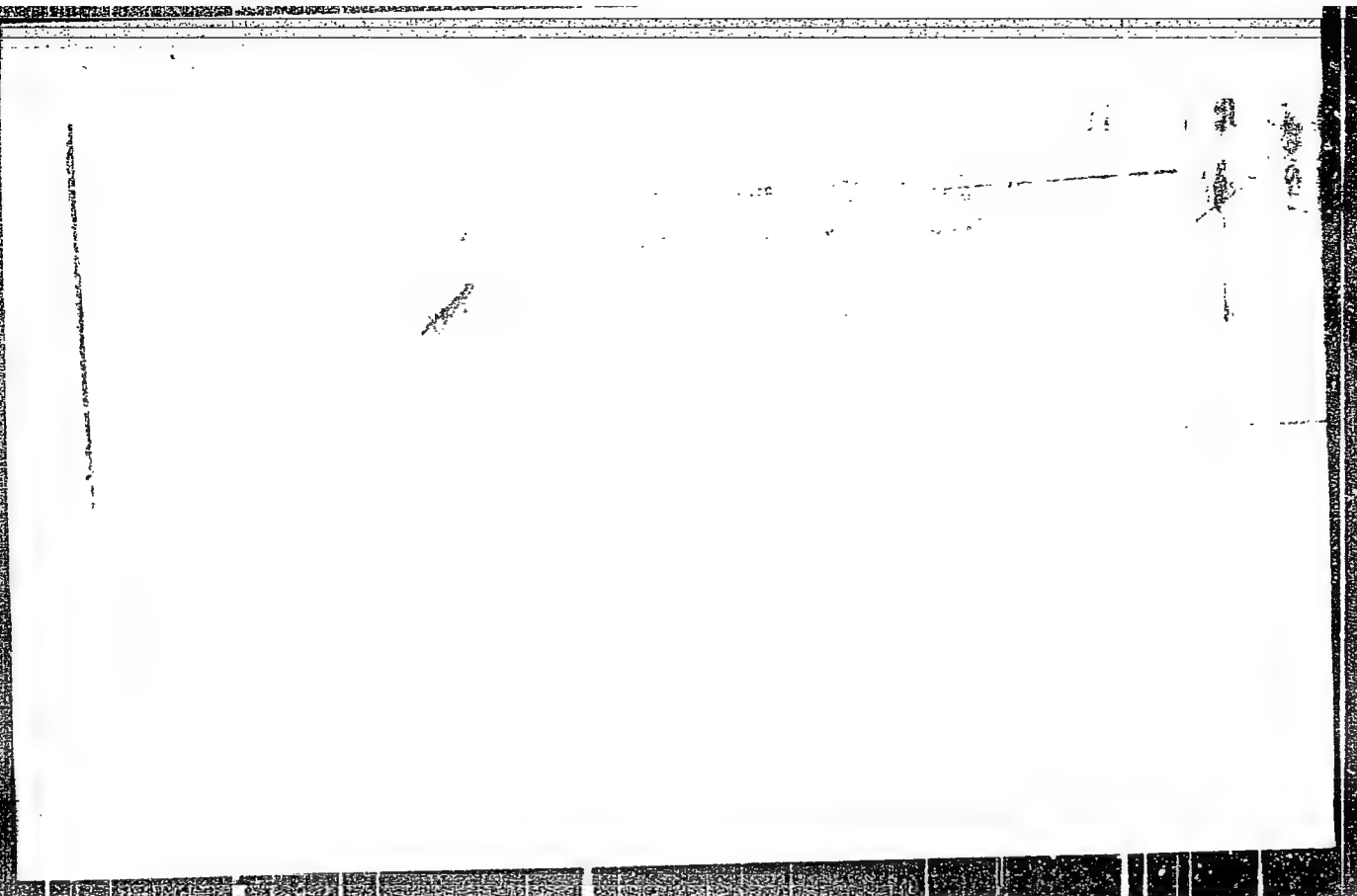
PETRASHEN', M.I.; IVANOVA, A.V.; VOL'F, G.

Elementary method for calculating the effect of the crystal-lattice
field on ionic single-electron S- and P-functions. Vest.Len.un.11
no.10:29-38 '56.   (MLRA 9:9)
(Crystallochemistry) (Wave mechanics)

CZECHOSLOVAKIA / Chemical Technology. Food Industry.   H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75481.

Author   : Volf, Glavachova, Prskavtsova, Mareshova.
Inst   : Not given.
Title   : A Change in Food Products Caused by Ionization.

Orig Pub: Zh. gigieny, epidemiol., microbiol., i immunol.
          (Chekhosl.), 1958, I, No 2, 137-142.

Abstract: The Effect of X-rays upon microflora, ascorbic
          acid content, pepsin and diatase was studied.
          It was established that already at relatively
          small doses the content of ascorbic acid and
          the activity of ferments is decreased consid-
          erably in certain food products.

Card 1/1

VOL'F, F.N.

Intensity of harmonic and combination components in nonlinear
distortions of compound vibrations. Akust. zhur. 1 no.4:321-
325 O-D '55.   (MIRA 9:2)

1.Kiyevskiy ordena Lenina politekhnicheskiy institut.
          (Electroacoustics)

VOLF, I.

Calculation of the composition of concrete based on the
measurable consumption of water and cement. Tr. from the
Russian. p. 96.
INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha
Vol. 2, no. 3, Mar. 1954.

SOURCE: EEAL   LC   Vol. 5, No. 10 Oct. 1956

VOL'F, I.

First day in Jakarta. Vokrug sveta no.1:13-15 Ja'55. (MIRA 8:2)
(Jakarta, Indonesia--Description)

L 16652-65   FWT(1)/EPF(c)/EPA(w)-2/EFC(t)/T/EWA(m)-2   Pr-4/Pab-10   IJP(c)/
ESD(gs)/ESD(t)/AEDC(a)/AEDC(b)/SSD(a)/SSD/AFWL/AS(mp)-2   WW
ACCESSION NR: AP4045293   S/0048/64/028/009/14:3/1426

AUTHOR: Vol'f, Ioakhim

TITLE: On some technological problems of a carbon-ion source

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 28, no. 9, 1964, 1423-1426

TOPIC TAGS: ion source, carbon ion, ionized carbon, ionization, carbon

ABSTRACT: An apparatus is described which, according to the author's claim, can
produce a continuous beam of carbon ions of about 40 µamp for periods of one to
two hours. The instrument consists of a ring-shaped ion source facing a graphite
rod which serves as anode. When bombarded in high vacuum with an electron beam,
the front surface of the rod is heated to 2900K. This causes the emission of a
molecular carbon beam. On their path towards the graphite rod, the electrons cross
this molecular carbon beam and produce carbon ions by colliding. Thus, the same
electron beam performs two functions: it makes the graphite evaporate and ionizes
the gas. Because the ring-shaped ion emitter is negative in relation to the graph-
ite rod, the positive carbon ions are accelerated and extracted from the ionization
zone. The authors state that in their device each thousandth electron creates an
ion and almost every thousandth evaporated carbon atom is ionized. Orig. art. has:
4 figures.
Card 1/2

L 16651-65

ACCESSION NR: AP5000080

g is gravitational acceleration, Θ is the angle between the flight direction and the gravitational field, and t is the flight time on the active trajectory. The electromagnetic moment is transduced into an electric current which is amplified in the amplifier section. Two electrodes, set in a bath of sodium acetate, sodium chloride, and acetic acid, serve as the principal components of the integrator unit. A layer of silver chloride on one electrode is transferred to the other by electrolysis, varying in intensity with time and with the transmitted current i. The quantity of silver chloride transferred is given by

$$A = q \int_0^t i\,dt = K(V + \int_0^t g \sin \Theta\, dt),$$ where q is the electrochemical equivalent and

K is a proportionality constant relating the pendulum section with the electro-chemical integrator. The entire system is shown schematically in a diagram Orig. art. has: 16 equations and 3 figures.

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: NG

NO REF SOV: 004

ENCL: 00

OTHER: 000

Card 2/2

VOL'F, Iozef

GEYNY, Ladislav [Hejny, Ladislav]; TEGNIK, Vladimir [Tehnik, Vladimir], inzhener; VOL'F, Iozef [Wolf, Josef], inzhener.

Technical progress in track maintenance on Czechoslovak railroads.
Zhel. dor. transp. 39 no.5:26-32 My '57.   (MLRA 10:6)

1. Nachal'nik TSentral'nogo upravleniya putevogo khozyaystva i zdaniy (for Geyny). 2. Glavnyy inzhener upravleniya putevogo khozyaystva i zdaniy (for Tegnik). 3. Starshiy revizor upravleniya putevogo khozyaystva i zdaniy (for Vol'f).
                    (Czechoslovakia--Railroads--Track)

90

PROCESSES AND PROPERTIES

Testing cements in plastic mortars. I. V. Voll. *Stroited. Prom.* 16, No. 2, 37-8(1938). -All hydraulic cements and especially those based on slags can be tested without filler in the form of rammed, plastic and cast mortars (cubes). The following procedure is recommended: (a) from pure cement (without filler) is prepd. a paste by accurately mixing cement with 40-50% of water by hand for 3 min.; (b) 7-07-cc. samples are prepd. in molds shaken 50 times on a vibration table to eliminate the air enclosed in the paste. The samples are taken from the molds after 24 hrs., stored in water at 15-20° and tested after 1, 3, 7 and 28 days.

K. K. Stefanowsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VOLF, I. V.

CA

20

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

Activated concrete, slag portland cement and mineral wool from schist slags. I. V. Volf and L. Ya. Mishulo-vich. *From. Stroitel. Materialy,* No. 12, 3-4 (1940).

The possibility of activating granulated schist slags and making concrete from them has been demonstrated experimentally. Lime and portland cement were used as activators. Good quality slag wool was obtained from slags with small addns. of lime or magnesia. B. R. S.

20

PROCESSES AND PROPERTIES INDEX

Activated concrete, slag portland cement and mineral wool from schist slags. I. V. Volf and L. Ya. Minhulovich. Prom. Stroitel. Material. 2, No. 12, 20-4 (1940).—

The possibility of activating granulated schist slags and making concrete from them has been demonstrated experimentally. Lime and portland cement were used as activators. Good-quality slag wool was obtained from slags with small addns. of lime or marneda.   E. E. S.

METALLURGICAL LITERATURE CLASSIFICATION

1. VOL'F, I.V.

2. USSR (600)

4. Concrete - Tables, Calcuations, Etc.

7. Computation of the consistency of concrete based on specific consumption of
    water and cement, Stroi.prom. 31 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, ___APRIL___ 1953, Uncl.

VOL'F, I.V., kandidat tekhnicheskikh nauk; TSELUYKO, M.K.; PUKHAL'SKIY, G.V., kandidat tekhnicheskikh nauk; KHOKHOLEV, K.I.; LITVINOV, O.O., redaktor; YANOVSKIY, V., redaktor; IOAKIMIS A., tekhnicheskiy redaktor.

[Experience in using blast furnace slag in construction] Opyt primeneniia domennykh otval'nykh shlakov v stroitel'stve. Pod red. O.O.Litvinova. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekture USSR, 1956. 109 p.   (MLRA 9:6)

1.Direktor Zhdanovskogo filiala YUZHNII (for TSeluyko). 2.Direktor Dnepropetrovskogo filiala YUZHNII (for Khokholev). 3.Chlen-korrespondent Akademii arkhitektury USSR (for Litvinov).
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Dissertation: "Preparation of Ion-Exchange Adsorbents From Humin Substances
and Investigation of Their Exchange Capacities"

SO: Referativnyy Zhurnal Khimiya, No. 1, Oct. 1953 (W/29955, 26 Apr 54)

VOL F, I.

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CSO: 1743-N

THEORY AND PRACTICE OF THE APPLICATION OF ION-EXCHANGE MATERIALS

K. V. Chmutov

U/L-1

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Ionoobmennykh Materialov, Moscow,
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"The Results of the Investigation of Ion-Exchange Adsorbents Derived from Humins,"
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VOL'F, I.V., (Novosibirsk-Leningrad); MOISEYEV, A.S.(Novosibirsk-Leningrad); KORYSTIN, P.V., (Novosibirsk-Leningrad); NOVIK, I.V.(Novosibirsk-Leningrad)

Distilling water with a portable ionite filter. Vod. i san.tekh. no.12:8-10 D '56.   (MIRA 10:3)
(Water--Purification) (Ion exchange)

VOL'F, I.V., MOISEYEV, A.S., KORYSTIN,P.V., NOVIK,I.V.

"Purification of Water in a Portable Ionite Filter," by I. V. Vol'f, A. S. Moiseyev, P. V. Korystin, and I. V. Novik, Vodos- nabzheniye I Sanitarnaya Tekhnika, No 12, Dec 56, pp 8-10

The article gives a brief history of the development of portable ionite filters for purification (elimination of salts and impurities) from water to render it potable, conducted by the All-Union Scientific Research Institute for Hydraulic Engineering and Sanitary Engineering Works, from 1950 to present.

The article also describes in detail the construction and character- istics of a portable ionite water filter developed in 1955 by the above institute in conjunction with the Novosibirsk Scientific Research Sani- tary Institute, the filter being designed for the use of small groups under field conditions in areas of high mineral content.

The purified water output of the filter on a single charge of ionites is 250 liters when the salt content of the original water is less than 3 g/l. When the original salt concentration is 5-6 g/l, the fresh water output is reduced to 100-120 l.

The filtering unit itself is cylindrical in shape, the dimensions being one meter x 200 mm.

SUM. 1287